REMARKS

Attached hereto is a request for an extension of time and the appropriate fee.

The present invention is directed toward providing an improved and economical method of manufacturing toy dolls, figurines and action figures from plastic and enhancing the lifelike poseability of the toy in a safe manner.

The present invention utilizes an internal core metal frame, for example, of wires, such as stainless steel or iron, which are provided with a plurality of rigid core sections. The rigid core sections are positioned in a spaced manner along the metal frame while exposing portions at locations adjacent the anatomical joints of the simulated living creature so that lifelike movements can be provided. The metal frame can be further coated with a synthetic resin material having a hardness value to limit the bending of the metal frame. The metal frame with the spaced rigid core sections may be further designed to provide anchor points for firmly holding this intermediate structure within a mold. A soft synthetic resin can be molded to provide an exterior simulated tissue to the metal intermediate frame. The selection of the rigid core sections from a synthetic resin which is compatible with the soft synthetic resin for simulating the tissue of the doll is chosen to permit a strong adhesion or welding between the chosen plastic materials to prevent any dislocation or awkward tactile feel to the doll when it is bent. The metal frame can further include a bent wire or metal rod so that a pair of substantially parallel segments extend from a curved, bent section. Any inadvertent exposure of the bent section presents a safer configuration for contact with a child.

As the cited prior art indicates, this is a relatively crowded field and has been an area of interest of skilled engineers for a long period of time in the manufacturing of toys, figurines and

moldable sculptural items. The present invention represents significant improvements in this field which are not taught by any combination of the references of the record.

> Thus when differences that may appear technologically minor nonetheless have a practical impact, particularly in a crowded field, the decision-maker must consider the obviousness of the new structure in this light.
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> *Continental Can Co. USA Inc. v. Monsanto Co.*, 20 USPQ 2d 1746, 1752 (Fed Cir. 1991).

The Office Action cited the *Robson*, U.S. Patent No. 3,624,691, as anticipating Claims 18 and 19 and as further rendering obvious Claims 20-23, 25-29, 31-32, and 56-57. In forming this rejection, the Office Action bears the responsibility of establishing obviousness from teachings found in the cited prior art. However, the Office Action acknowledged that *Robson* failed to teach the specific materials for the skeleton and skin members, the post-molding treating steps to remove irregularities on the skin of the doll, the manner in which a rear surface of a distal end of the cores corresponding to a foot skeleton section are positioned in the mold and the arranging of fixing shafts at sites where the injection pressure of soft resin would be unstable. The Office Action contended that it would be merely a matter of choice for a person of ordinary skill in this field to select the appropriate plastic resins and to mold and finish the doll in the manner set forth in our claims.

To establish a *prima facie* case of obviousness, the Examiner must demonstrate that one of ordinary skill in the art would have found both suggestions to construct the claimed structure, and a reasonable expectation of successfully doing so, in the prior art. *In re Vaeck*, 947 F.2d 488, 493, 20 USPQ2d 1438, 1442 (Fed. Cir. 1991). Moreover, the Examiner bears the initial burden of supplying the factual basis for his position. *In re Warner*, 379 F.2d 1011, 1017, 154 USPQ 173, 178 (CCPA 1967), cert. denied, 389 U.S. 1057 (1968). Although the Examiner may take official notice of technical facts outside of the record to fill the gaps that might exist in the

evidentiary showing to satisfy his burden, such asserted technical facts must be "capable of such instant and unquestionable demonstration as to defy dispute." *In re Ahlert*, 424 F.2d 1088, 1091, 165 USPQ 418, 420 (CCPA 1970). However,

> [a]ssertions of technical facts in areas of esoteric technology must always be supported by citation to some reference work recognized as standard in the pertinent art and the appellant given, in the Patent Office, the opportunity to challenge the correctness of the assertion . . . [a]llegations concerning "knowledge" of the prior art, which might be peculiar to a particular art, should also be supported and the appellant similarly given the opportunity to make a challenge.
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> *Ahlert*, 424 F.2d at 1091, 165 USPQ at 420-1.

The Office Action further rejected Claims 24 and 30 over a combination of the *Robson* patent in view of the *Dahl*, U.S. Patent No. 3,284,947, under 35 U.S.C. § 103.

The *Robson* '691 patent is directed to providing an aquanaut doll having a realistic appearance with removable fins. See Column 1, Lines 27-28. Bendable wires are held together by brace members that are apparently formed of the same plastic material as the feet and hands by a molding step in the mold of Figure 5. As noted, narrow web sections at the feet and hands can serve as "living hinges" to enable the hands and feet to pivot about a portion of the plastic. See Column 2, Lines 40-44. The brace members are formed of a flesh-colored polypropylene material. See Column 2, Lines 69-75. After the armature shown in Figure 3 has been formed, it is then placed in a second mold so that the rest of the doll, with the exception of the face portion, can then be molded. This is accomplished with a polyvinylchloride material. See Column 3, Lines 30-37. The face portion of the doll is then glued onto the mold to complete the doll's construction.

The principal teaching in the *Robson* patent, to a person of ordinary skill in this field is the ability to simultaneously mold the pair of fins 24 and 26 out of the same soft

polyvinylchloride material so that the outer covering of the doll is formed intricately with the fins in a single injection molding step, thereby reducing cost while permitting the child to remove the fins from the doll. See Column 4, Lines 3-10. As noted in Column 1, the fins which are molded over the doll's feet are connected to the rest of the covering by only a thin cross-sectional area and, accordingly, can be easily broken. Obviously, the polyvinylchloride of the soft material for the fins does not weld or affix to the rigid polypropylene material forming the feet, or else the fins could not be easily removed and replaced on the doll by the child.

The *Dahl* '942 patent was concerned about degassing the core of a large doll or a manikin. As noted in Column 2, Lines 65-73, the doll or mannequin contemplated by the doll or mannequin contemplated is apparently a life-sized doll that can be used for displaying clothing or even used to provide animated motion pictures. Apparently in such a large structure, outgassing of gas from a soft malleable lead or solder wire can be a problem. This is accomplished by providing an interior skeleton-simulating structural supporting framework having substantially rigid portions connected to rods of a low-strength metallic material such as lead, solder or otherwise similar material. See Column 7, Lines 30-36. As noted, the prime teaching in this reference is to degas the deformable metallic wire material in a vacuum environment, thereby preventing deterioration of a plastic.

A secondary teaching of this invention is to provide tension relieving means that accommodate the bending of portions of the lead or solder wire. This tension relieving means can be seen, for example, in Figure 2 as providing relatively open spaces R at the ends of the wire where they are connected to the rigid sections. Thus, a relative movement can be accomplished between the wire and the rigid portions in the skeleton simulating portions. See Column 9, Lines 19-48.

The rigid material for the bracing is broadly described in Column 7 as "any suitable rigid material such as a rigid plastic, metal, wood or any other suitable material." In addition, this rigid material should be "unaffected by the casting or molding operation comprising the formation of the flesh simulating outer body." See Column 7, Lines 20-30. The outer tissue portion or flesh-simulating material can be rubber, plastic or the like as long as it is adapted to effectively seal the exterior pores of the outgassed or degassed metallic material. See Column 9, Lines 15-18.

Thus, the *Dahl* reference is directed to a radically different structure than that of both the *Robson* reference and the present invention as set forth in the Claims. The *Dahl* reference like the *Robson* reference does not teach an outer soft synthetic resin material that will weld to a inner more rigid synthetic material forming part of the metal frame. Additionally to apparently accommodate a large-size manikin, the metallic portion is a very soft, ductable material such as lead or solder. Since the *Dahl* reference desires a relative movement between the solder structure and the outer coating, there does not appear to be any suggestion of a welding and compatibility of two different types of plastic as defined in our present invention. Needless to say, the specifics of the range of hardness values in the bent metal frame structure to provide a pair of substantially parallel portions is never addressed by any of these references.

In summary, the *Robson* reference teaches brace members 38-58 formed from a polypropylene material while the flexible covering material is formed from a vinyl material such as polyvinylchloride. These materials are not compatible for welding with each other and thereby enable the molding of fins of the same soft material as that of the covering 12 about the respective feet 20 and 22 which are formed from polypropylene material. Thus, the fins can be

repeatedly removed and reinstalled on the feet since the interface between the feet and the fins is not welded together.

In the present invention, as set forth in our claims, the skeleton-forming material and the skin flesh-forming material are compatible with each other and bind strongly together to insure that there is no strange feeling when the arms, legs and the like are bent, and that there is no torsion or dislocation between the second cores and the outer covering of the skin flesh member. The *Dahl* '947 patent was defined to permit movements between the spine simulating skeleton portion 12T as described in Column 6, Lines 9-33, and Column 7, Lines 62-68. Thus, this reference teaches away from the features of our present invention. Additionally, it is submitted that our dependent claims such Claim 30 defining the two curved cores of the trunk permit more realistic movement than that of the *Dahl* reference.

Accordingly, it is submitted that the present invention as defined in the presently pending claims is neither anticipated nor rendered obvious. These features are further set forth in the newly drafted Claims 58-65.

It is believed that the case is now in condition for allowance, and an early notification of the same is requested.

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If the Examiner believes that a telephone interview will help further prosecution of this case, he is respectfully requested to contact the undersigned attorney at the listed telephone number.

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231 on February 26, 2003.

By: Sandy Malec

Sandy Malec

Signature

Dated: February 26, 2003

Very truly yours,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION:

The specification has been amended as follows:

Page 18, Lines 8-30:

Subsequently, the thus-obtained semi-finished product 32 is securely placed in a further mold 33 as shown in Fig. 17. The mold 33 is formed therein with spaces 34 into which a resin material for the skin/flesh member of the elastic doll is injected, except for the elbows 29, hands 30 and feet 31. Of the mold 33, portions thereof corresponding to the elbows 29, hands 30 and feet 31 are fixed when the mold is closed, resulting in the semi-finished product 32 being securely held in the mold 33 while being floated in the spaces 34. In order to ensure that the semi-finished product 32 is securely held at a central position thereof, it is preferable that one of mold members of the mold 33 be mounted thereon with a fixing pin (not shown), resulting in the semi-finished product 32 being abutted at a lower abdomen thereof against a distal end of the fixing pin. After the mold 33 is closed, a molten material (thermoplastic elastomer of 30 in hardness) is injected through runners 26b into the spaces 34. When the mold 33 is opened after cooling thereof, a finished product wherein the skeleton member 7 is covered with the skin/flesh member 6 is obtained, as shown in Fig. [7] 17. The lower abdomen of the elastic doll is formed thereon with a mark 35 of the fixing pin. However, it is normally covered with underwear, to thereby be out of sight, so that the mark may be ignored.

Page 8, Lines 31-34:

Manufacturing or molding of the elastic doll shown in Fig. [7] 17 is not limited to the above-described manner. For example, the elbows 29, hands 30 and feet 31 may be formed together with other parts in the last step.

IN THE CLAIMS:

Please cancel without prejudice Claims 1-17, 19 and 33-56.

Please amend the following claims:

18. (Amended) A method for manufacturing an elastic doll comprising the steps of:

insert molding second cores on each of flexible first cores so as to be spaced from each other using a skeleton forming material of a rigid synthetic resin, to thereby form a skeleton member including said first and second cores connected to each other; and

insert molding a skin/flesh member on said skeleton member using a skin/flesh forming material of a soft synthetic resin whereby the rigid synthetic resin and the soft synthetic resin are compatibly welded together.

21. (Amended) A method for manufacturing an elastic doll as defined in claim 18 [or 19] wherein the elastic doll includes a trunk, arms and legs in which said skeleton member is embedded;

[said skeleton forming material being rigid synthetic resin and said skin/flesh forming member being soft synthetic resin;]

said step of insert molding said second cores includes forming fixing shafts which extend from said second cores to a surface of the doll; and

said step of insert molding said skin/flesh member includes arranging said skeleton member in a mold for molding the skin/flesh member, fixing said fixing shafts on mating surfaces of said mold to stabilize said skeleton member and injecting the soft synthetic resin into said mold,

further comprising the steps of removing portions of said fixing shafts projected from the surface of the doll after molding and treating marks left on the surface of the doll due to removal of the projected portions of said fixing shafts.

27. (Amended) A method for manufacturing an elastic doll which includes a trunk, arms and legs in which a skeleton member is embedded, comprising the steps of:

providing cores made of rigid synthetic resin to constitute said skeleton member wherein fixing shafts are formed to extend from said cores to a surface of the doll;

arranging said skeleton member in a mold and fixing said fixing shafts on mating surfaces of said mold to stabilize said skeleton member;

injecting soft synthetic resin into said mold; and

removing portions of said fixing shafts projected from the surface of the doll after molding and treating marks left on the surface of the doll due to removal of the projected portions of said fixing shafts, the soft synthetic resin and rigid synthetic resin are welded together within the mold.

57. (Amended) A method for manufacturing an elastic doll as defined in claim [19] 18 wherein the elastic doll includes a trunk, arms and legs in which said skeleton member is embedded;

[said skeleton forming material being rigid synthetic resin and said skin/flesh forming member being soft synthetic resin;]

said step of insert molding said second cores includes forming fixing shafts which extend from said second cores to a surface of the doll; and

said step of insert molding said skin/flesh member includes arranging said skeleton member in a mold for molding the skin/flesh member, fixing said fixing shafts on

mating surfaces of said mold to stabilize said skeleton member and injecting the soft synthetic resin into said mold,

further comprising the steps of removing portions of said fixing shafts projected from the surface of the doll after molding and treating marks left on the surface of the doll due to removal of the projected portions of said fixing shafts by a hot air procedure to melt the surface adjacent the marks and the flexible first cores are formed of one of a stainless steel and iron fixedly attached to the second cores.